

CLAIMS:

1. A method for labeling a key on a hardware input device, wherein a plurality of pattern layers are associated with a key, one of first and second pattern layers being disposed on top of the other of the first and second pattern layers, said method comprising the steps of:
 - receiving a first control signal from a computer in a first context;
 - displaying at least a portion of the first pattern layer responsive to the first control signal in the first context;
 - receiving a second control signal from the computer in a second context; and
 - displaying at least a portion of the second pattern layer responsive to the second control signal in the second context.
2. The method according to claim 1, wherein the first control signal represents an application that is in focus.
3. The method according to claim 1, wherein the portion of the first pattern layer includes text representing a function associated with the key in an active application in the first context.
4. The method according to claim 1, wherein the portion of the first pattern layer includes an icon representing a function associated with the key in an active application in the first context.
5. The method according to claim 1, wherein the step of displaying at least the portion of the first pattern layer includes illuminating at least the portion of the first pattern layer, and wherein the step of displaying at least the portion of the second pattern layer includes illuminating at least the portion of the second pattern layer.
6. The method according to claim 6, further comprising de-illuminating at least the portion of the first pattern layer responsive to the second control signal in the second context.
7. The method according to claim 1, wherein the first and second pattern layers are in a region adjacent to the key.

8. The method according to claim 1, wherein the first and second pattern layers are part of the key.
9. The method according to claim 1, further comprising the step of discontinuing the display of the portion of the first pattern layer responsive to the second control signal in the second context.
10. The method according to claim 1, wherein the first pattern layer includes first and second portions, said displaying the portion of the first pattern layer including displaying the first portion of the pattern layer.
11. The method according to claim 10, further including the steps of:
receiving a third control signal from the computer in a third context; and
displaying the second portion of the first pattern layer responsive to the third control signal in the third context.
12. The method according to claim 11, further including responsive to the third control signal, discontinuing the display of any portions of the first and second pattern layers displayed.
13. The method according to claim 10, wherein the first and second portions are mutually exclusive.
14. The method according to claim 1, wherein the first and second pattern layers are electroluminescent.
15. A computer-readable medium having computer-executable instructions for performing the steps recited in claim 1.
16. A method for labeling a key on a keyboard, said method comprising the steps of:
receiving a control signal representing a language in which a computer is currently configured to provide instructions to a user; and
labeling the key based on the currently configured language.
17. The method according to claim 16, wherein a plurality of pattern layers are associated with the key, one of first and second pattern layers being disposed on top of the other of the

first and second pattern layers, and wherein said labeling includes displaying at least a portion of one of the first and second pattern layers.

18. The method according to claim 17, wherein a portion of the first pattern layer includes a character associated with a first language and a portion of the second pattern layer includes a character associated with a second language.

19. A hardware input device for providing inputs to a computer comprising:
a plurality of input keys, at least one key being associated with a plurality of labels, each label representing a context associated with the key, wherein a label displayed is configured to change in response to a control signal representing a current context generated by the computer.

20. The input device according to claim 19, wherein a first label displayed represents a character in a first language in a first context, and a second label displayed represents a second language in a second context.

21. The input device according to claim 19, further including a plurality of stacked layers configured to display the label representing the current context of the key responsive to the control signal.

22. The input device according to claim 21, wherein the stacked layers are in a region adjacent to the key.

23. The input device according to claim 21, wherein the stacked layers are part of the key.

24. The input device according to claim 23, wherein the stacked layers are electroluminescent pattern layers located at the top of the key.

25. The input device according to claim 23, wherein the stacked layers are electroluminescent pattern layers located at the bottom of the key in a substrate of the key.

26. The input device according to claim 25, wherein the key further includes a transparent top portion and optical components disposed between the transparent top portion and the stacked electroluminescent pattern layers, the optical components projecting a display of the

label representing the context of the key from the electroluminescent pattern layers through the transparent top portion.

27. The input device according to claim 19 further including a plurality of stacked pre-printed liquid crystal displays configured to display the label representing the context of the key responsive to the control signal.

28. The input device according to claim 19 further including a preprinted template including having the plurality of labels thereon, the template configured to be moved to display the label associated with the current context responsive to the control signal.

29. The input device according to claim 19 further including a plurality of stacked OLED layers configured to display the label representing the context of the key responsive to the control signal.

30. The input device according to claim 19 further including an electronic ink layer configured to display the label representing the context of the key responsive to the control signal.

31. A method for labeling a key on a keyboard, wherein a plurality of labels are associated with a key, said method comprising the steps of:

receiving a control signal from a computer representing a current context; and

automatically moving a template in the keyboard so that the label corresponding to the current context is displayed in a region adjacent to the key.

32. The method according to claim 31, wherein the template is drum-shaped or octagonal.

33. The method according to claim 31, wherein the current context corresponds to an application in focus.

34. The method according to claim 31, wherein the current context is a language.

35. A computer-readable medium having computer-executable instructions for performing the steps recited in claim 31.

36. A computer readable medium having computer-executable instructions for performing the steps of:

determining a current context of a computer;

generating a control signal representing the current context; and

transmitting the control signal to a keyboard, the control signal causing one of a plurality of stacked layers associated with a key of the keyboard to be illuminated, wherein the illuminated layer displays the current context of the key.

37. The computer-readable medium of claim 36, wherein the current context represents a language.

38. The computer readable medium according to claim 36, wherein the current context represents an application in focus.

39. A method for configuring a keyboard, comprising:

receiving a control signal representing a current context from a computer; and

causing a topography of a keyboard substrate to change responsive to the control signal.

40. The method according to claim 39, wherein said causing includes generating a raised portion on the substrate representing the current context.

41. The method according to claim 40, wherein the raised portion provides a user interface representing input options available to a user in the current context.

42. The method according to claim 41, wherein the input options are represented on the raised portion in the form of at least one of text or icons.

43. The method according to claim 41, further comprising providing a label for each input option responsive to the control signal.

44. A computer-readable medium having computer-executable instructions for performing the steps recited in claim 39.

45. A keyboard comprising a configurable substrate, wherein responsive to a control signal representing a current context, said substrate changing topography to generate a user interface.

46. The keyboard according to claim 44, comprising labels representing various contexts associated with the user interface, wherein at least one label is configured to be displayed responsive to the control signal representing the current context of the user interface.

47. A keyboard comprising:

- a plurality of keys, each key associated with a region for displaying a current context for the key;

- a driver for receiving a control signal from a computer and generating a signal for associating the current context with each key; and

- a movable template configured to display the current context of each key responsive to a signal received from the driver in the region associated with each key.

48. A computer readable medium having computer-executable instructions for performing the steps of:

- determining a current context of a computer;

- generating a control signal representing the current context; and

- transmitting the control signal to a keyboard, the control signal causing an electronic ink pattern associated with a key of the keyboard to display the current context of the key.